

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding is entered into this 14th day of March, 2000 by and between the Florida Department of Environmental Protection, hereinafter referred to as (FDEP) and the Florida-Caribbean Cruise Association, as representative of the cruise industry in Florida, hereinafter referred to as (FCCA).

WITNESSETH:

WHEREAS, the FDEP is responsible for the protection of Florida's environment and for regulation of environmental laws in the State of Florida; and

WHEREAS, the FCCA is a Florida corporation organized for the purpose of providing trade association services to member cruise lines which operate in Florida; its current membership is identified in Appendix I (attached); and

WHEREAS, the FDEP requested the FCCA to bring together members of the cruise industry to discuss the management of waste streams on board cruise vessels and the procedures for disposal of wastes in Florida; and

WHEREAS, the FCCA has joined with the International Council of Cruise Lines (ICCL), a Washington, D.C.-based cruise industry trade association, to develop cruise industry policy with regard to waste minimization, waste reuse and recycling and waste stream management; and

WHEREAS, the cruise industry and its member cruise lines are working in many areas to identify and implement new technologies in order to improve the environmental performance of cruise vessels; and

WHEREAS, the cruise industry through its trade associations, the ICCL and the FCCA, have been engaged with the FDEP in an active, trilateral discussion involving a number of environmental management policy goals based upon the following fundamental principles:

- Comply with applicable laws and regulations.
- Maintain cooperative relationships with the regulatory community.
- Manage waste streams.
- Minimize waste generated.
- Maximize reuse and recycling.
- Educate and train cruise vessel personnel in waste management practices.
- Embrace new technology in the management of waste streams.
- Design cruise vessels to be environmentally friendly.

WHEREAS, the FDEP recognizes that cruise vessels operate in international waters and move passengers to destinations worldwide and, consequently, that cruise vessel waste management practices must take into account

MEMORANDUM OF UNDERSTANDING

Page 2

environmental laws and regulations in many jurisdictions; and

WHEREAS, the FDEP recognizes that when a cruise vessel seeks to dispose of hazardous wastes in Florida, then waste management becomes a Florida activity subject to Florida regulations; and

WHEREAS, the FCCA and the ICCL have acted in "good faith" in working with the FDEP to develop waste management practices which will preserve a clean and healthy environment and which demonstrate the cruise industry's commitment to being stewards of the environment and setting policies that will make the industry a leader in environmental performance; and

WHEREAS, the cruise industry recognizes Florida's fragile environmental resources, and the cruise industry is committed to help protect these resources.

NOW, THEREFORE, the FDEP and the FCCA enter into this Memorandum of Understanding based upon the following mutual understandings:

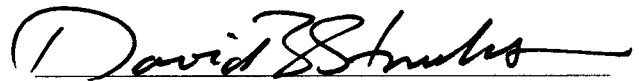
1. The FDEP accepts the Waste Management Practices Guidelines (Attached as Exhibit A) as cruise industry policy in the management of solid wastes, hazardous wastes, and waste waters. The FDEP acknowledges that these environmental management practices and procedures meet or exceed the standards set forth in Florida laws and applicable Florida regulations.
2. The FDEP understands that under U.S. regulations and laws, the U.S. Coast Guard is the primary federal agency with the primary responsibility to examine cruise vessels for the proper administration of waste streams. U.S. Coast Guard examinations assure that cruise vessels comply with international regulations (MARPOL) and U.S. regulations which are applicable to waste streams onboard the cruise vessel. The FDEP agrees that the U.S. Coast Guard is the proper U.S. agency to provide reasonable assurances that the cruise vessel is following management practices as contained in Exhibit A. The FCCA agrees to disseminate information to the FCCA cruise industry members which will request each cruise line to comply with the waste management practices as contained in Exhibit A, and further request that each cruise line maintain an appropriate record book relating to the described waste management practices for inspection by the U.S. Coast Guard.
3. Attached as Exhibit B is a uniform procedure for the application of the Resource Conservation Recovery Act (RCRA) to cruise vessels entering Florida. The FDEP accepts this procedure as the appropriate process for vendor selection and the management of hazardous wastes in Florida. The FCCA agrees to request that its member cruise vessel operators adopt these uniform procedures as meeting the requirements of Florida law.
4. The FDEP recognizes that waste management practices are undergoing constant assessment and evaluation by cruise industry members. It is understood by the FDEP, the FCCA, and the ICCL that the management of waste streams will be an on-going process which has as its stated objectives both waste minimization and pollution prevention. Consequently, all parties agree to continue to work with each other in "good faith" to achieve the stated objectives. This may require additional meetings with federal regulators to discuss specific issues applicable to the cruise industry in the U.S.

MEMORANDUM OF UNDERSTANDING

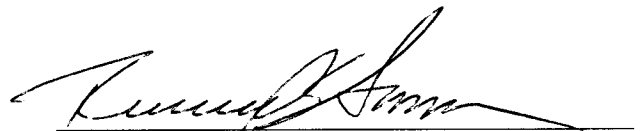
Page 3

5. The FCCA, through its member cruise lines, agrees to host an annual meeting with the FDEP and the ICCL for the purposes of continuing the review of waste management practices and to work cooperatively on waste minimization and pollution prevention technology and training initiatives. The U.S. Coast Guard and other appropriate entities will be invited to participate in the annual meeting. A working technical committee of the cruise industry will meet with the FDEP on specific issues. Attached as Appendix II is an agenda of goal attainments which the FDEP and the FCCA have established as working issues in preparation for the first annual meeting to be held in Fall Quarter, 2000.
6. The FDEP agrees that the performance required by the FCCA under the terms of this Memorandum of Understanding only shall be directed to its member cruise lines and the ICCL. The FCCA acknowledges that its members operate cruise vessels engaged in cruise itineraries greater than one day duration; and further that its members do not operate one-day attraction ships or casino gambling ships.

IN RECOGNITION OF THE MUTUAL UNDERSTANDINGS DISCUSSED HEREIN; THE PARTIES HERETO AFFIX THEIR SIGNATURES ON THIS 14TH DAY OF MARCH 2000.



Florida Department of Environmental Protection
By its Secretary, David Struhs



Florida-Caribbean Cruise Association
By its Chairman, Richard Sasso, on behalf of its members which have approved the provisions of this Memorandum.

EXHIBIT A

CRUISE INDUSTRY WASTE MANAGEMENT PRACTICES AND PROCEDURES

The cruise industry is dedicated to preserving the marine environment and oceans upon which our ships sail. As a stated industry policy, ICCL members have adopted aggressive programs of waste minimization, waste reuse and recycling, and waste stream management. ICCL members are working in a number of areas to identify and implement new technologies in order to improve the environmental performance of our ships. ICCL member lines currently have policies in place which meet or exceed the stringent standards set forth in international treaties and applicable U.S. laws.

Introduction

The cruise industry is inextricably linked to the environment. Our business is to bring people to interesting places in the world, over the water. Recognizing the future of the industry depends on a clean and healthy environment, cruise industry senior management is committed to being stewards of the environment and setting policies that will make the industry a leader in environmental performance.

This policy document has been developed under the auspices of the industry's professional organizations, the International Council of Cruise Lines (ICCL), the Florida Caribbean Cruise Association (FCCA), and the Northwest CruiseShip Association (NWCA). The goal of this document is to formalize cruise industry waste management practices.

In the development of industry management practices, the members of the International Council of Cruise Lines have endorsed policy goals based upon the following fundamental principles:

- Fully comply with applicable laws and regulations
- Maintain cooperative relationships with the regulatory community
- Design ships to be environmentally friendly
- Embrace new technology
- Conserve resources through purchasing strategies and product management
- Minimize waste generated and maximize reuse and recycling
- Optimize energy efficiency through conservation and management
- Manage water discharges
- Educate staff, guests and the community.

Discussion

Just as on shore, ship operations and passengers generate waste as part of many daily activities. On ships, waste is generated while underway and in port. Because ships move, the management of these wastes becomes more complicated than for land-based activities, as the facilities and laws change with the location of the ship. Facilities on the ships and management

practices must be designed to take into account environmental laws and regulations around the world. Moreover, because waste management ultimately becomes a local activity, the local port infrastructure, service providers, and local waste disposal vendors are factors in the decision-making processes.

On an international level, environmental processes are an important part of the International Maritime Organization's (IMO's) policies and procedures for the maritime industry. The cruise industry has incorporated environmental performance into Safety Management Systems (SMS) and MARPOL-mandated Waste Management Manuals. Under agreements and laws specific to many nations, these programs are routinely reviewed by Port States to ensure compliance. For example, in the United States, the US Coast Guard has jurisdiction over environmental matters in ports and waterways and conducts examinations that include review of environmental systems; SMS documentation and such MARPOL-mandated documents as the Oil Record Book and the Garbage Record Book.

The industry effort to develop management practices has focused on the traditional high volume wastes (garbage, graywater, blackwater and bilge water), pollution prevention, and the small quantities of hazardous waste produced onboard. In the process, ICCL members have shared waste management strategies and technologies, while focusing on a common goal of waste reduction.

The process of waste reduction includes waste prevention, the purchasing of products that have recycled content or produce less waste, and recycling or reuse of wastes that are generated. The ultimate goal is to have the waste reduction culture absorbed into every facet of cruise vessel operation. A fully integrated system beginning with the design of the vessel must address environmental issues at every step.

Management practices for waste reduction must start before a product is selected. Eco-purchasing and packaging are vital to the success of any environmental program, as are strategies to change packaging, processes and management to optimize the resources used.

The commitment of the industry to this cooperative effort has been quite successful as companies have shared information and strategies.

Waste Handling Procedures

Hazardous wastes and waste streams onboard cruise vessels are identified and segregated for individual handling and management in accordance with appropriate laws and regulations. Hazardous wastes are not discharged overboard nor are they commingled or mixed with other waste streams.

A. Photo Processing, Including X-Ray Development Fluid Waste

Discussion

There are several waste streams associated with photo processing operations that have the potential to be regulated under the Resource Conservation and Recovery Act (RCRA). These waste streams include spent fixer, spent cartridges, expired film and silver flake.

Photographic fixer removes the unexposed silver compounds from the film during the developing process. The spent fixer can have as much as 2000-3000 parts per million (ppm) of

silver. Silver bearing waste is regulated by RCRA as a hazardous waste if the level of silver exceeds 5 ppm as determined by the Toxicity Characteristic Leaching Procedure (TCLP) test.

Silver recovery units are used to reclaim the silver from the used fixer waste stream. There are two types of recovery units. These are active (with electricity) and passive (without electricity) units. The active unit uses electricity to plate silver onto an electrode. The passive unit uses a chemical reaction between steel wool and silver to remove most of the silver from solution. Utilizing the best available technology, the equipment currently onboard cruise ships conservatively reduces the silver content of this effluent to 1-3 mg/l (milligrams/l or ppm)

The effluent from the silver recovery process must be tested before it can be discharged as a non-hazardous waste to be further diluted by addition to the ship's gray water. After the photographic and X-ray development fluids are treated for the removal of silver, the treated, non-hazardous effluent is then blended with the ships' graywater. In general, assuming that an entire week's photographic and X-ray development treated effluent stream is introduced into a single day's accumulation of graywater, the concentration of silver in the resulting mixture would be less than one-half of one part per billion (<0.5 micrograms/liter). We wish to emphasize that such mixing would not be done on a weekly basis. Even at this assumed extreme however, the silver concentration would only be approximately one fifth (1/5) the surface water quality standard for predominately marine waters specified in one state where cruise ships operate. When mixing is done on a daily basis it is evident that the resulting immediate concentration would be almost an order of magnitude less than this. Additionally, it is evident that total mass of any discharges of silver would be negligible. We would once again point out that this discharge would be carried out only while the vessel is underway. [Also, it should be noted that these estimates were carried out considering the largest cruise ships in service which would produce the greatest amount of waste.]

Industry Goal: To minimize the discharge of silver into the marine environment through the use of best available technology that will reduce the silver content of the wastestream below levels specified by prevailing regulations.

Handling Method 1:

Treat used photographic and x-ray development fluids to remove silver for recycling.

Verify that the effluent from the recovery unit is less than 5 parts per million (ppm) silver as measured by EPA-approved methodology.

After treatment, the residual waste stream fluid is non-hazardous and may be landed ashore or discharged in accordance with the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78) and other prevailing regulations.

Handling Method 2:

Assume used photographic and x-ray development fluids to be a hazardous waste and land ashore in accordance with the requirements of the Resource Conservation and Recovery Act (RCRA).

Next Steps: To identify effective and efficient digital photo technology or other technologies to reduce hazardous waste stream generation.

B. Dry-cleaning waste fluids and contaminated materials

Discussion

Shipboard dry cleaning facilities use a chlorinated solvent called perchlorethylene (also known as PERC or tetrachloroethylene) as a dry cleaning fluid. This is the approved dry cleaning solvent for these units. Operators must receive specific required training for the correct use of this chemical and its associated precautions. This solvent must be used in accordance with all safety procedures including appropriate personal protective equipment (PPE).

The dry cleaning units produce a small volume waste from condensate, the bottoms of the internal recovery stills, waste products from button and lint traps, spent perchloroethylene and filter media. This waste is comprised of dirt, oils, filter material, and spent solvent. Each ship utilizing these dry-cleaning units produces approximately two pounds of waste material weekly. However, the amount may vary greatly by season and passenger load. This material is classified as hazardous waste under RCRA and must be handled accordingly.

Industry Goal: To prevent the discharge of chlorinated dry-cleaning fluids, sludge, contaminated filter materials and other waste byproducts into the environment.

Handling Method:

Perchloroethylene (PERC) and other chlorinated dry-cleaning fluids, contaminated sludge and filter materials are hazardous waste and are to be landed ashore in accordance with the requirements of RCRA.

Next Steps: Research and investigate the use of alternative dry cleaning processes such as CO₂ and “wet” processes for use onboard ships.

C. Print Shop Waste Fluids

Discussion

Print shop waste may contain hazardous waste. Printing solvents, inks and cleaners all may contain hydrocarbons, chlorinated hydrocarbons, and heavy metals that can be harmful to human and aquatic species. Recent advances in printing technology and substitution of chemicals that are less hazardous reduces the volume of print shop waste generated and reduces the impact of these waste products.

The cruise industry will, whenever possible, utilize both printing methods and the chemicals used in the printing process that produce both less volume of waste and less hazardous waste products. Shipboard printers will be trained in ways to minimize printing waste generated. Alternative printing inks such as soy based, non-chlorinated hydrocarbon based ink products will be used whenever possible. All printshop waste including waste solvents, cleaners, and cleaning cloths will be treated as hazardous waste, if such waste contains chemical components that may be considered as hazardous by regulatory definitions. All other waste will be treated as non-hazardous.

Industry Goal: To prevent the discharge of harmful printing materials (inks) and cleaning chemicals into the environment.

Handling Method 1:

When using traditional or non-soy based inks and chlorinated solvents, treat all print shop waste as hazardous and discharge ashore in accordance with RCRA.

Handling Method 2:

Use non-toxic based printing ink such as soy based, non-chlorinated solvents, and other non-hazardous products to eliminate hazardous waste products.

Next Steps: Increased use of non-toxic based printing ink and non-chlorinated solvents and other non-hazardous products to eliminate the hazardous waste component within the stream.

D. Photo Copying and Laser Printer Cartridges

Discussion

Increased use of laser and photo copying equipment on shore as well as onboard ship results in the generation of increased volumes of waste cartridges, inks, and toner materials. Cruise ships should use only such inks, toners and printing/copying cartridges that contain non-hazardous chemical components. None of these cartridges, or their components should be disposed of by discharge into the marine environment. In recognition of the industry's goal of waste minimization, these cartridges should, whenever possible, be returned to the manufacturer for credit, recycling, or for refilling.

Industry Goal: To return photo copying and laser printer cartridges for recycling.

Handling Method:

Wherever possible, photo copying and laser printer cartridges will be collected, packaged and returned for recycling.

E. Unused And Outdated Pharmaceuticals

Discussion

In general ships carry varying amounts of pharmaceuticals. The pharmaceuticals carried range from over-the-counter products such as anti-fungal creams to prescription drugs such as epinephrine. Each ship stocks an inventory based on its itinerary and the demographics of its passenger base. All pharmaceuticals are managed to ensure that their efficacy is optimized and that disposal is done in an environmentally responsible manner.

When disposing of pharmaceuticals the method used must be consistent with established procedures. Pharmaceuticals and medications which are off specification or which have exceeded their shelf-life, and stocks that are unused and out of date, cannot be used for patients and therefore must be removed from the ship. Further, each regulatory jurisdiction has a posting

of listed pharmaceuticals that must be considered hazardous waste once the date has expired or the item is no longer considered good for patient use.

Through onboard management of the medical facility, stocks of such listed pharmaceuticals are returned to the vendor prior to date of expiration. Pharmaceuticals that are being returned and which have not reached their expiration date are shipped using ordinary practices for new products.

Safety and Health

The handling of all expired listed pharmaceuticals must be in accordance with established procedures and all personnel handling this waste must receive appropriate training in the handling of hazardous materials. As guidance, the US Environmental Protection Agency (EPA) has issued a report that clarifies the fact that residuals, such as epinephrine, found in syringes after injections are not considered an acutely hazardous waste by definition and may be disposed of appropriately in sharps containers. All Universal Precautions will be adhered to when handling sharps.

Industry Goal: To ensure that unused and/or outdated pharmaceuticals are effectively and safely disposed.

Handling Method 1:

Establish a reverse distribution system for returning unexpired, unopened non-narcotic pharmaceuticals to the original vendor.

Handling Method 2:

Appropriately destroy narcotic pharmaceuticals onboard ship in a manner that is witnessed and recorded.

Handling Method 3:

Land listed pharmaceuticals in accordance with local regulations. Listed pharmaceuticals are a hazardous waste having chemical compositions which prevent them from being incinerated or disposed of through the ships sewer system. Listing of such pharmaceuticals may vary from state to state.

Handling Method 4:

Dispose of other non-narcotic and non-listed pharmaceuticals through onboard incineration or landing ashore.

F. Fluorescent And Mercury Vapor Lamp Bulbs

Discussion

The recycling of fluorescent lights and high intensity discharge (HID) lamps is a proven technology capable of reliably recovering greater than 99 percent of the mercury in the spent lights. This is done by using a crush-and-sieve method. In this process, the spent tubes are first crushed and then sieved to separate the large particles from the mercury containing phosphor powder. The phosphor powder is collected and processed under intense heat and pressure. The

mercury is volatilized and then diluted to the required purity. The glass particles are segregated and recycled into fiberglass. Aluminum components are also recycled separately.

Storage and handling of used lights pose no compatibility problems; nevertheless, storage and shipment of the glass tubes is best-done keeping the glass tubes intact. These items are classified as "Universal Waste" when they are shipped to a properly permitted recycling facility; as such, testing is not required.

Safety and Health

Fluorescent and Mercury Vapor lamps contain small amounts of mercury that could potentially be harmful to human health and the environment. To prevent human exposure and contamination of the environment, these lamps must be handled in an environmentally safe manner. Recycling of mercury from lamps and other mercury containing devices is the preferred handling method and is encouraged by various states. The recycling of fluorescent lights and HID lamps keeps potentially hazardous materials out of landfills saves landfill space and reduces raw materials production needs.

Industry Goal: To prevent the release of mercury.

Handling Method:

Fluorescent and mercury vapor lamps will be collected and recycled or landed for recycling or disposal in accordance with prevailing laws and regulations.

G. Batteries

Discussion

If not properly disposed of, spent batteries may constitute a hazardous waste stream. Most of the large batteries are on tenders and standby generators. Small batteries used in flashlights and other equipment and by passengers, account for the rest. There are four basic types of batteries used.

Lead-acid batteries – These are used in tenders and standby generators. They are wet, rechargeable, and usually six-celled. They contain a sponge lead anode, lead dioxide cathode, and sulfuric acid electrolyte. The electrolyte is corrosive. These batteries require disposal as a hazardous waste, unless recycled or reclaimed.

Lead-acid batteries use sulfuric acid as an electrolyte. Battery acid is extremely corrosive, reactive and dangerous. Damaged batteries must be drained into an acid-proof container. The leaking battery is then placed in another acid-proof container, and both the electrolyte and the damaged battery placed in secure storage for proper disposal as a hazardous waste.

Nickel-cadmium (NiCad) batteries – These are usually rechargeable, and contain wet or dry potassium hydroxide as electrolyte. The potassium hydroxide is corrosive and the cadmium is a characteristic hazardous waste. Therefore, NiCad batteries must be disposed of as hazardous waste, unless recycled or reclaimed.

Lithium batteries – These are used as a power source for flashlights and portable electronic equipment. All lithium batteries must be disposed of as hazardous waste, or sent out for reclamation.

Alkaline batteries – These are common flashlight batteries and are also used in many camera flash attachments, cassette recorders, etc. They should be recycled, properly disposed or reclaimed.

Discarded batteries must be isolated from the refuse waste stream to prevent potentially toxic materials from inappropriate disposal. The wet-cell battery-recycling program is kept separate from the dry battery collection process. Intact wet-cell batteries are sent back to the supplier. Dry-cell batteries are manifested to a licensed firm for recycling.

Industry Goal: To prevent the discharge of spent batteries into the marine environment.

Handling Method:

Collect spent batteries and return for recycling and/or disposal in accordance with prevailing regulations.

H. Bilge and Oily Water Residues

Discussion

The area of the ship at the very bottom of the hull is known as the bilge. The bilge is the area where water collects from various operational sources such as water lubricated shaft seals, propulsion system cooling, evaporators, and other machinery. All engine and machinery spaces also collect oil that leaks from machinery fittings and engine maintenance activities. In order to maintain ship stability and eliminate potential hazardous conditions from oil vapors in engine and machinery spaces, the bilge spaces must be periodically pumped dry. In discharging bilge and oily water residues, both international regulations (MARPOL) and United States regulations require that the oil content of the discharged effluent be less than 15 parts per million and that it not leave a visible sheen on the surface of the water.

All ships are required to have equipment installed onboard that limits the discharge of oil into the oceans to 15 parts per million when a ship is en route and provided the ship is not in a special area where all discharge of oil is prohibited. Regulations also require that all oil or oil residues, which cannot be discharged in compliance with these regulations, be retained onboard or discharged to a reception facility. The equipment and processes implemented onboard cruise ships to comply with these requirements are complex and sophisticated.

The term “*en route*” as utilized in MARPOL (73/78) Regulation 9(b) is taken to mean while the vessel is underway. Conversations with U.S. Coast Guard, indicate that they also agree with this interpretation.

In accordance with MARPOL (73/78) Regulation 20, every ship of 400 gross tonnage and above shall be provided with an oil record book which shall be completed on each occasion whenever any of numerous specified operations take place in the ship. For all ships, these operations include:

- a. Ballasting or cleaning of fuel oil tanks,
- b. discharge of dirty ballast or cleaning water from the fuel oil tanks above,
- c. disposal of oily residues,
- d. and discharge of bilge water which accumulated in machinery spaces.

Requirements regarding the keeping of an Oil Record Book as well as the form of the Oil Record Book are also found in MARPOL and in U.S. Coast Guard regulations (33CFR151).

Industry Goal: To meet and exceed the international requirements for removing oil from bilge and wastewater prior to discharge.

Handling Method:

Process bilge and oily water residue prior to discharge to remove oil residues, such that oil content of the effluent is less than 15 ppm as specified by MARPOL Annex 1.

I. Glass, Cardboard, Aluminum and Steel Cans

Discussion

Management of shipboard generated waste is a challenging issue for all ships at sea. This is true for cruise vessels, other commercial vessels, military ships, fishing vessels and recreational boats. Waste products in earlier days were made from natural materials and were mostly biodegradable. Today's packaging of food and other products presents new challenges for waste management. A large cruise ship today can carry over three thousand passengers and crew. Each day, an average cruise passenger will generate two pounds of dry trash and dispose of two bottles and two cans.

A strategy of source reduction, waste minimization and recycling has allowed the cruise industry to significantly reduce shipboard generated waste. To attain this, cruise ship operators are adopting a multifaceted strategy that begins with waste minimization to decrease waste from provisions brought onboard. This means purchasing in bulk, encouraging suppliers to utilize more efficient packaging, reusable packaging, and packaging materials that are more environmentally friendly—those that can be more easily disposed of or recycled. In fact, through this comprehensive strategy of source reduction, total waste on passenger vessels has been reduced by nearly half over the past ten years.

Another important component of the industry's waste reduction strategy is product or packaging recycling. Glass, aluminum, other metals, paper, wood and cardboard are, in most cases, recycled.

Industry Goal: To eliminate the disposal of MARPOL Annex V wastes into the marine environment through improved reuse and recycling opportunities.

Handling Method:

Handle in accordance with the above industry goal or otherwise comply with the strict requirements of MARPOL when in international waters.

J. Incinerator Ash

Discussion

Incinerator ash is not normally a hazardous waste. Through relatively straightforward waste management strategies, items that would cause the ash to be hazardous are separated from the waste stream and handled according to accepted hazardous waste protocols. In general, source segregation for waste streams is one of the foundation stones for onboard waste management and is incorporated into the waste management manual required by MARPOL. Waste management for onboard waste streams include the following: source reduction, minimization, recycling, collection, processing and discharge ashore. This allows the incinerator to be used primarily for food waste, contaminated cardboard, trash and wood.

Incinerator ash should be tested at least once quarterly for the first year of operation to establish a baseline. Testing may then be conducted once a year. A recognized test procedure should be used to demonstrate that ash is not a hazardous waste. The test may include the following metals as indicators for toxicity - arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver. Special attention is placed on the removal of batteries from the incinerator waste stream. The use of incinerators saves landfill space and prevents the build up of material onboard that could become the breeding ground for insects, rodents and other vermin.

Industry Goal: To reduce the production of incinerator ash by minimizing the generation of waste and maximizing recycling opportunities.

Handling Method:

Proper hazardous waste management procedures onboard assure that waste products that will result in a hazardous ash are not introduced into the incinerator. Non-hazardous incinerator ash may be disposed of at sea in accordance with MARPOL Annex V. Ash identified as being hazardous must be disposed of ashore in accordance with RCRA.

K. Graywater

The term graywater is used on ships to refer to wastewater that is generally incidental to the operation of the ship. The International Maritime Organization (IMO) defines graywater as including drainage from dishwasher, shower, laundry, bath and washbasin drains. The US Clean Water Act (formally known as the Federal Water Pollution Control Act) includes galley, bath and shower water in its definition. The US regulations implementing this act do not include a further definition of gray water. However, the regulations do include a provision that exempts all of the wastewater included in the IMO definition and other discharges incidental to the operation of a ship from the Clean Water Act's permitting program (formally known as the National Pollution Discharge Elimination System (NPDES) program). Finally, the US Coast Guard regulations include provisions that essentially combine the two definitions from the IMO and the Clean Water Act. These definitions indicate that there is global acceptance of the fact that gray water is not considered harmful to the environment. None of the definitions of graywater include blackwater (discussed below) or bilgewater from the machinery spaces.

The conclusion to be drawn from these various regulations is that wastewater discharges incidental to the operation of a ship are generally not subject to permitting or other regulatory programs.

Handling Method:

Graywater will be discharged only while ships are underway. This policy was agreed to in recognition that dispersal of these discharges is desirable and that mixing of these waters, which are discharged approximately 10-14 feet below the surface, by the action of the propellers and the movement of the ship, provides the best dispersal available.

Wastewater recycling:

Because of the amounts of fresh water involved and its restricted availability onboard ship (all fresh water must be either purchased or manufactured), water is a valuable commodity. Therefore, water management is extremely important and takes the form of both minimizing water usage and the recycling or reuse of water. Many ICCL companies are researching new technology and piloting graywater treatment systems onboard their vessels. ICCL member operators also take numerous steps in onboard water management. Water management techniques include:

- a. Use of technical water (for example: air conditioning condensate) where possible,
- b. use of water recovery systems (for example: filtering and reuse of laundry water – last rinse use for first wash) and,
- c. active water conservation (for example: use of reduced flow showerheads, vacuum systems for toilets and laundry equipment that utilizes less water).

L. Blackwater

Most cruise ships separate waste from toilets, urinals, and other similar facilities (including sinks and drains in the medical facility) from other wastewaters. This separated waste is called “blackwater.”

Blackwater is processed using an approved “Marine Sanitation Device” (MSD) that is intended to prevent the discharge of untreated or inadequately treated blackwater. Marine Sanitation Devices use physical, chemical and/or biological processes to allow effluent from the process to be discharged with characteristics that are similar to effluents from conventional, shoreside wastewater treatment plants.

All MSDs are certified and approved by the US Coast Guard. The US Coast Guard consults with the Environmental Protection Agency in evaluating processes used by MSDs.

The US Coast Guard regularly inspects MSDs while onboard ships for proper operation during their Control Verification Examinations. If the Coast Guard has reason to believe that an MSD is not properly operating, it can require the vessel owner to have the effluent sampled and analyzed by a qualified wastewater laboratory, with the results reported to the Coast Guard.

Handling Method:

Blackwater will be discharged only while underway and in accordance with applicable regulations.

M Training and Educational Materials

Training is an important and ongoing part of every position and tasking onboard cruise ships. Not only is training necessary for the safe and economical operation of a ship, it is required by numerous international conventions and flag state regulations. The International Convention on Standards of Training Certification and Watchkeeping (STCW) for example, sets forth requirements for knowledge, experience and demonstrated competency for licensed officers of the deck and engineering departments and for ratings forming part of a navigation or engineering watch. These detailed requirements address not only the navigation of the ship but also the proper operation of the shipboard machinery and knowledge of and ability to assure compliance with the environmental protection requirements of MARPOL and the safety regulations of The International Convention on Safety of Life at Sea (SOLAS). SOLAS also requires that the ships training manual be placed in the crew messes and recreation rooms or in individual crew cabins.

The cruise industry has developed programs which raise the level of environmental awareness on the part of both the passengers and the crew. Each ship's crew is given frequent, and in many instances, advanced training in shipboard safety and environmental management procedures. Those directly responsible for handling waste are given specific instruction in their duties and responsibilities and in the operation of the various equipment and waste management systems. Specific efforts that our member lines have taken to train employees and increase passenger awareness include:

- a. Announcements over the public address system and daily notices in ship newsletters that caution against throwing any trash overboard,
- b. signage and colorful posters placed in crew and passenger areas encouraging environmental awareness and protection,
- c. safety and environmental information booklets in crew cabins and crew lounges,
- d. regular meetings of ship safety and environmental committees consisting of officers and crew from all departments to review methods of improving performance, including better and more effective environmental practices.

STCW, SOLAS and the International Management Code for the Safe Operation of Ships and for Pollution Prevention (ISM Code) require that training be fully documented. Individual training is documented in each crew member's file and ship training exercises, such as fire drills and emergency response exercises, are documented in the various ships logs. All of these training documents are required to be available for oversight examination by both the ships flag state inspectors and by port state authorities such as the United States Coast Guard.

Placards warning of the prohibition of the discharge of oil are posted on all ships operating in the navigable waters of the United States as required by U.S. Coast Guard regulations (33CFR155.450). Additionally, as part of required shipboard waste management plans, both Coast Guard regulations (33CFR151.59) and MARPOL (Annex V Regulation 9) require the posting of placards that notify the passengers and the crew of the disposal requirements for garbage. These placards are to be written in the official language of the State whose flag the ship is entitled to fly and also in English or French if neither of these are the official language. Once again, oversight of compliance with these requirements is conducted by ISM audits and frequent inspections by flag states and the United States Coast Guard.

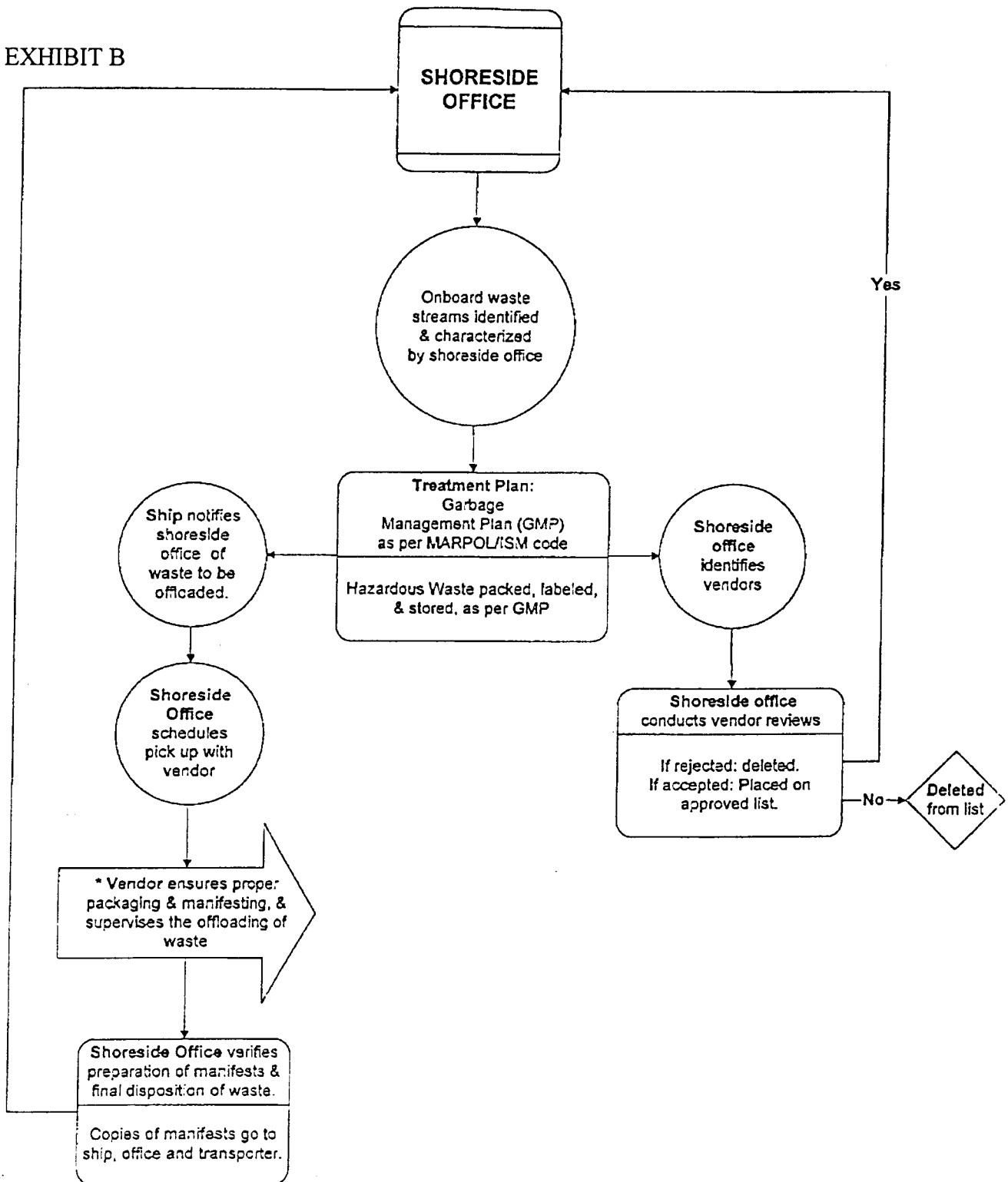
Compliance with the ISM Code is mandated by the Safety of Life at Sea Convention. This comprehensive Code requires that each vessel operating company and each vessel participate in a

very strictly defined management program, under both internal and external audit and regulatory oversight, that sets forth detailed procedures for assuring compliance with safety, environmental protection, emergency response and training mandates.

Conclusion

This paper has presented an overview of most waste management practices and procedures utilized onboard the cruise ships operated by members of the International Council of Cruise Lines. We are constantly working to improve waste management handling processes onboard our ships. This document will be updated periodically to incorporate information regarding these improvements.

EXHIBIT B



NOTE: If the contents of a waste container are unknown, the label will state "unknown." The ship will have the vendor sample and characterize the waste. Once the waste is properly characterized it will be labeled and offloaded under the supervision of the vendor.

* For the United States, the assigning of an EPA Identification Number is as per existing practice.

APPENDIX I

MEMBER LINES

Cape Canaveral Cruise Line
7099 North Atlantic Avenue
Cape Canaveral, FL 32920
Tel: (407) 783-4052 Fax: (407) 783-4120

Carnival Cruise Lines
3655 N.W. 87th Avenue
Miami, FL 33178
Tel: (305) 599-2600 Fax: (305) 471-4700

Celebrity Cruises
1050 Caribbean Way
Miami, FL 33132
Tel: (305) 539-6000 Fax: (305) 372-0441

Costa Cruise Lines N.V.
80 S.W. 8th Street
Miami, FL 33130
Tel: (305) 358-7325 Fax: (305) 375-0676

Cunard Line Ltd.
6100 Blue Lagoon Drive, Suite 400
Miami, FL 33126
Tel: (305) 463-3000 Fax: (305) 463-3034

Disney Cruise Line
210 Celebration Place, Suite 400
Celebration, FL 34747-4600
Tel: (407) 566-3500 Fax: (407) 566-7353

Holland America Line
300 Elliott Avenue West
Seattle, WA 98119
Tel: (206) 281-3535 Fax: (206) 281-7110

Norwegian Cruise Line
7665 Corporate Center Drive
Miami, FL 33126
Tel: (305) 436-4000 Fax: (305) 436-4120

Premier Cruises
400 Challenger Road
Cape Canaveral, FL 32920
Tel: (407) 783-5061 Fax: (407) 868-7918

Princess Cruises
1801 S.E. 20th Street, Terminal 2
P.O. Box 165201
Fort Lauderdale, FL 33316-5201
Tel: (954) 525-8520 Fax: (954) 760-7986

Regal Cruises
300 Regal Cruises Way
Palmetto, FL 34221
Tel: (941) 721-7300 Fax: (941) 723-0646

Royal Caribbean International
1050 Caribbean Way
Miami, FL 33132
Tel: (305) 539-6000 Fax: (305) 372-0441

Seabourn Cruise Line
6100 Blue Lagoon Drive, Suite 400
Miami, FL 33126
Tel: (305) 463-3000 Fax: (305) 463-3034

Sun Cruises
Parkway Four, Parkway Business Centre
300 Princess Rd.
Manchester, England M14 7QU
Tel: 44 -61-2322800 Fax: 44-161-2322865

Topaz International Cruises
1015 North America Way, Suite 128
Miami, FL 33132
Tel: (305) 376-8600 Fax: (305) 376-4375

APPENDIX II

AGENDA: GOAL ATTAINMENTS

1. Develop a timetable for the implementation of an environmental policy which establishes and requires the discharge of identified waste waters outside Florida territorial waters.
2. Work with Environmental Protection Agency (EPA) to develop a uniform national practice for the assigning of an EPA Identification Number to the generator of hazardous wastes which will recognize the unique aspects of a cruise vessel operator and its multiple itineraries.
3. Work with U.S. Coast Guard to develop guidelines relating to the inspection of waste management practices employed by the cruise vessel operator in furtherance of the waste management practice guidelines developed by the cruise industry and accepted by the Florida Department of Environmental Protection (FDEP).